

CLAIMS

1. A plastic lidded barrel (10) having a barrel body (20) with an upper open end defined
by an upper barrel edge (28) and a radially inwardly facing wall surface, a plastic
barrel lid (12) covering the open end of the barrel in a closed position of the lid, said
lid having a central section and an outer lid edge (16) which in cross-section defines a
downwardly facing U-shaped part overlying said upper barrel edge (28) with an outer
downwardly facing peripheral edge disposed radially outwardly of said barrel edge
(28), a U-shaped tension-ring closure member (14), which in said closed position of
the lid engages with an upper leg of said tension-ring closure member over an
upwardly facing surface of said outer lid edge (16) and engages with a lower leg of
said tension-ring closure member under an outer downwardly facing barrel edge (18)
that extends below the upper barrel edge (28), characterized in that:

- a) said barrel lid (12), between said outer lid edge (16) and said central section,
includes an engaging groove (32) for an upper claw of a parrot beak lifting
mechanism, said engaging groove (32) having a groove floor (48), a first side
wall (52) connecting said floor (48) to said central section and a second side
wall (58) connecting said floor (48) and said outer lid edge (16);
- b) an outer ring flange (54) extending downwardly from said floor (48) of said
engaging groove (32); and

- c) a radially outwardly facing surface disposed along said second side wall (58) and said outer ring flange (54) and having a portion thereof facing said inner wall surface of said open upper end of said barrel body (20).

5 2. A blow-molded lidded barrel (10) having a barrel body (20) with an upper open end defined by an upper barrel edge (28) having an uppermost surface and an outer downwardly facing peripheral barrel edge surface (18) disposed radially outwardly of said barrel body (20), and a radially inwardly facing inner wall surface, a barrel lid (12) covering the open end of the barrel in a closed position of the lid, said lid having a central section and an outer peripheral lid edge (16) which in cross-section defines a downwardly facing U-shaped part overlying said upper barrel edge (28), a U-shaped tension-ring closure member (14), which in said closed position of the lid engages with an upper leg of said tension-ring closure member over an upwardly facing surface of said outer lid edge (16) and engages with a lower leg of said tension-ring closure member under said outer downwardly facing barrel edge surface (18) that extends below said uppermost surface of the upper barrel edge (28), characterized in that:

- 15 a) the lower leg of the tension-ring closure member (14) engages in an indentation (22) in the upper barrel body;
- 20 b) said indentation (22) has an upper boundary defined by said barrel edge surface (18) and a portion extending downwardly away from said barrel edge

surface (18) to provide space sufficient to receive a lower claw of a parrot beak lifting mechanism;

c) the uppermost surface of said upper barrel edge (28) defines an outer support with a lid seal (30) disposed between said upper barrel edge (28) and said U-shaped surface of said outer lid edge (16);

d) said barrel lid (12), between said outer lid edge (16) and said central section, includes an engaging area (32) for an upper claw of said parrot beak lifting mechanism; and

e) the upper open end of the barrel body (20) further includes an exterior flange (40) extending radially outwardly of said upper barrel edge (28) with a lower surface thereof defining a part of said outer barrel edge surface (18).

3. In an open top barrel (10) having a barrel body (20) with an upper end defined by an upper barrel edge (28) extending circumferentially around said barrel and including a first portion (27) extending radially away from said body (20) and having a downwardly facing surface (18), and a second portion (29) extending upwardly from said first portion (27) at a location radially outwardly of said first portion (27), the improvement comprising:

a) an exterior rib (40), said rib (40) defining part of said barrel edge and having both an upper surface and a lower surface projecting radially outwardly of said first and second portions with said lower surface of said rib disposed along said downwardly facing surface (18) and defining a continuing part of said

downwardly facing surface (18), said rib (40) terminating in a free end surface connecting said upper and lower surfaces.

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4. In a blow-molded lidded barrel (10) having a barrel body (20) with an upper open end defined by an upper barrel edge (28) having a first portion (27) extending radially away from said body (20) and having a downwardly facing surface (18), and a second portion (29) extending upwardly from said first portion (27) at a location radially outwardly of said first portion (27), to define an uppermost surface, a barrel lid (12) covering the open end of the barrel in a closed position of the lid, said lid having a central section and an outer peripheral lid edge (16) which in cross-section defines a downwardly facing U-shaped part overlying said upper barrel edge (28), a U-shaped tension-ring closure member (14), which in said closed position of the lid engages with an upper leg of said tension ring closure member over an upwardly facing surface of said outer lid edge (16) and engages with a lower leg of said tension-ring closure member under said downwardly facing surface (18) that extends below said uppermost surface of the upper barrel edge (28), the improvement comprising:

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- a) an exterior rib (40), said rib (40) defining part of said barrel edge and having both an upper surface and a lower surface projecting radially outwardly of said first and second portions with said lower surface of said rib disposed along said downwardly facing surface (18) and defining a continuing part of said downwardly facing surface (18), said rib (40) terminating in a free end surface connecting said upper and lower surfaces.

5. An open top plastic drum, comprising:

a) a blow-molded drum body having:

i) a closed bottom;

ii) a substantially axially symmetrical sidewall extending upwardly from said bottom; and

iii) a chime portion for receiving a removable cover, said chime portion extending from said sidewall so as to define an open top and including:

(1) a substantially radial first chime wall projecting outwardly from said sidewall and having a bottom surface,

(2) a substantially cylindrical second chime wall directed upwardly from an outer portion of said first chime wall and having a lower portion contiguous with adjacent said first chime wall, and

(3) an exterior circumferential rib having a bottom surface that is substantially coplanar with said first wall;

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↓
said second chime wall having a thickness substantially the same as the thickness of said sidewall
Δ ← *insert from cl. 10*
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b) a cover having a peripheral chime receiving member that includes a circumferential flange having an inner diameter larger than said second chime wall but less than said circumferential rib; and

c) a retaining ring having first and second legs fixedly connected by an intermediate band, wherein said first leg engages an outer surface of said peripheral chime receiving member directly above said second chime wall, and

wherein said second leg engages the bottom portions of said rib and said first chime wall directly below said second chime wall.

6. An open top drum as defined in claim 5 wherein said rib fills a portion of an area between said second leg, intermediate band, second chime wall and circumferential flange.

7. An open top drum as defined in claim 5 wherein said rib substantially fills said area.

8. An open top drum as defined in claim 5 wherein said drum is made of blow molded plastic and said sidewall is substantially frustroconical.

9. An open top drum as described in claim 5, wherein said cover is plastic and includes a skirt that extends inside said chime portion.

10. An open top plastic drum, comprising:
a) a blow-molded drum body having:

i) a closed bottom;
ii) a substantially axially symmetrical sidewall extending upwardly from said bottom, and

iii) a chime portion for receiving a removable cover, said chime portion extending from said sidewall so as to define an open top and including:

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to Irwin et al.

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- (1) a substantially radial first chime wall projecting outwardly from said sidewall and having a bottom surface,
- (2) a substantially cylindrical second chime wall directed upwardly from an outer portion of said first chime wall and having a lower portion contiguous with adjacent said first chime wall, *new member* said second chime wall having a thickness substantially the same as the thickness of said side wall, and
- (3) an exterior circumferential rib having a bottom surface that is substantially coplanar with said first wall and substantially perpendicular to the longitudinal axis of the container circumscribing said lower portion of said second chime wall, whereby the rib increases the moment of inertia of the chime portion and thus provides greater rigidity to said chime portion;

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- b) a cover having a peripheral chime receiving member that includes a circumferential flange having ^aan inner diameter larger than said second chime wall but less than said circumferential rib, so as to extend only over an upper portion of said second chime wall but not over said rib;
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- c) a retaining ring having first and second legs fixedly connected by an intermediate band, wherein said first leg engages an outer surface of said peripheral chime receiving member directly above said second chime wall and wherein said second leg engages the bottom portions of said rib and said first chime wall directly below said second chime wall such that the length of

engagement of the lower leg of the ring with the chime portion is increased
and the ring has increased resistance to deformation and sliding from the
chime if the drum is dropped.

cl. 2 of Irwin et al.

- 5 11. An open top drum as defined in claim 10 wherein said rib fills a portion of an area
between said second leg, intermediate band, second chime wall and circumferential
flange.

reads verbatim to cl. 3 of Irwin et al.
but dependent on 10 not 11

12. An open top drum as defined in claim 10 wherein said rib substantially fills said area.

cl. 6 of Irwin et al.

13. An open top drum as defined in claim 10 wherein said drum is made of blow molded
plastic and said sidewall is substantially frustoconical.

cl. 7 of Irwin et al.

14. An open top drum as described in claim 10, wherein said cover is plastic and includes
a skirt that extends inside said chime portion.

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